

TAG 3.4 Explore

Name \_\_\_\_\_

Hour \_\_\_\_\_ Date \_\_\_\_\_

### **Stopping on a Dime**

Read pg. 178 and the top of pg. 179.



What is the challenge you will accomplish in this section?

What previous knowledge will help you accomplish this challenge?

Describe the relationship between net force and acceleration?

Describe the relationship between mass and acceleration? Is it a direct or inverse relationship?

### **Procedure- pg. 179**

Read and complete Steps 1-5.

Record data on "Mass and Acceleration" Page



### **Communicate- pg. 180**

Follow your teacher's directions to share your results with the class.

Did you notice any trends among the results?

**Reflect- pg. 180**



**1) Complete these statements (You may use force diagrams for your "because" statements):**

a. To increase the distance my propeller car travels, I could..., because...

b. To decrease the distance my propeller car travels, I could..., because...

**2) Think about the distance traveled as an indicator for acceleration, and complete these statements:**

a. To increase the acceleration of my car, I could..., because....

b. To decrease the acceleration of my car, I could..., because...

**3) Combine everything you now know, and complete this statement:**

a. To make my car carry a greater load over a longer distance, I could..., because...

### **What's the Point?**

What conclusions can you make from this experiment?

